463 D

Food habits of sambar deer (Cervus unicolor unicolor) in relation to time of year, age and sex differences at the Horton Plains National Park

A study was conducted at Horton Plains National park during the period from 1997-2000 to study the differences in the composition of diet of sambar in relation to time of year, sex, and with age. In order to study the composition of diet, fecal samples were cleaned in boiling concentrated nitric acid and . A reference collection of slides were prepared for the identification of epidermal tissues in dung samples.

The analysis showed that the diet contained the grasses *Pennicetum*, *Chrysopogon*, *Andropogon*, and other monocots (which were not identified) along with sedges, ferns, dicotyledons,sheath and wood. The results (ANOVA) reveled that there are differences in botanical composition of fecal samples between the sexes and adult and baby sambar. The proportion of best quality food (*Pennicetum*) was highest in the babies(42.6%) than in adults (31.1%) at $P<0.05$. The results also indicates that the higher proportion of best quality food (*Pennicetum*) was found in females (37.5%) as compared to the males (34.8%) at $P<0.05$, except in year 1999 where it was marginally significant at $P=0.05$.This tendency was found only in higher quality foods when the sexes were taken into consideration. When the ages were taken into consideration the proportion of both the higher quality foods and also other food items like *Chrysopogon*, Other monocot species (which were in minute amounts),Sedges, ferns, Dicotyledons, sheath and wood varied significantly. The results of indicate a significant ($P<0.05$) variation of proportion of the food items in the diet between different months.